



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

HL

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,708	08/31/2001	Richard B. Thompson	3645-0104P	9931
2292	7590	10/25/2004	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			SRIVASTAVA, KAILASH C	
		ART UNIT	PAPER NUMBER	
		1651		

DATE MAILED: 10/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action</b>	Application No.	Applicant(s)	
	09/942,708	THOMPSON ET AL.	
	Examiner	Art Unit	
	Dr. Kailash C. Srivastava	1651	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 05 October 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY [check either a) or b)]**

a)  The period for reply expires 5 months from the mailing date of the final rejection.

b)  The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.  
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1.  A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2.  The proposed amendment(s) will not be entered because:

(a)  they raise new issues that would require further consideration and/or search (see NOTE below);

(b)  they raise the issue of new matter (see Note below);

(c)  they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

(d)  they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3.  Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.

4.  Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5.  The a) affidavit, b) exhibit, or c) request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Attachment.

6.  The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7.  For purposes of Appeal, the proposed amendment(s) a) will not be entered or b) will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 2,5 and 13.

Claim(s) withdrawn from consideration: 8, 23, 25-33.

8.  The drawing correction filed on \_\_\_\_\_ is a) approved or b) disapproved by the Examiner.

9.  Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.

10.  Other: \_\_\_\_\_

Continuation of 2. NOTE: Claims 8, 23 and 25-33 are drawn to non-elected invention. Those Claims have not been examined before.

## ATTACHMENT TO ADVISORY ACTION

1. The response filed 05 October 2004 has been received and considered.
2. The proposed amendments filed on 05 October 2004 under 37 C.F.R. §1.116 have not been entered. The proposed amendments present subject matter requiring further consideration or search, including, for example, the proposed Claims 8, 23 and 25-33 that have been drawn to previously unexamined subject matter drawn to non-elected invention. Furthermore, Claim 8 is improperly presented under 37 C.F.R. §1.121 because Claim 8 cannot be both withdrawn and amended simultaneously.
3. Dr. Richard B. Thompson's' Declaration filed under 37 C.F.R. §1.132 is acknowledged and entered. The Declaration alleges unexpected aspects of the combination of the ABD-M fluorophore described in the Toyo'oka reference with carbonic anhydrase at the time the instant invention was made because:

- Publication from C.A. Ferke et al. (2001) demonstrates tight binding of ABD-M to holo-CA increased quantum yield,
- No known way to predict the binding constant of the interaction of ABD-M with holo-CA at the time the instant invention was made and neither of the prior art references provided said information, and
- unexpected blue shift in fluorescence when ABD-M fluorophore binds to carbonic anhydrase.

Applicants' arguments cited *supra* in regard to unexpected results in view of Dr. Thompson's Declaration have been fully and carefully considered but are not found persuasive for following reasons:

- a. The alleged unexpected result presented in the 2001 publication showing increased quantum yield upon fluorophore binding to a protein is shown not only by ABD-M, but also by a number of other fluorophores in the exhibit (See Exhibit I).
- b. The 2001 publication evidence was disclosed well after the time the instant application was filed. Note that "advantage not disclosed in an application can not be urged as basis for allowing claims" (*In re Lundberg*, 117 USPQ, 190),
- c. The binding constant of an interaction between a protein and a fluorophore can not be predicted for any protein-ligand let alone the instant combination,
- d. Shifting the hydrophobic fluorophore from the polar solvent to the non-polar environment of the binding site is reasonably expected to provide a blue shift as is well known in fluorescence spectroscopy art.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kailash C. Srivastava whose telephone number is (571) 272-0923. The examiner can normally be reached on Monday to Thursday from 8:15 A.M. to 6:45 P.M. (Eastern Standard or Daylight Savings Time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn, can be reached on (571) 272-0926 Monday through Thursday. The fax phone number for the organization where this application or proceeding is assigned is (703)-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

Kailash C. Srivastava, Ph.D.  
Patent Examiner  
Art Unit 1651  
(571) 272-0923

October 21, 2004



JON WEBER  
SUPERVISORY PATENT EXAMINER